

AMENDMENTS TO THE SPECIFICATION

Please amend paragraph [0030], [0038], [0040], [0041] and [0052] as follows:

[0030] The electronic control module 26 controls the output of the generator 22 and the output of the DC/DC converter 27 in addition to controlling the output of the power-converting unit 24. Preferably, the control module 26 comprises at least a central processing unit (CPU) and some form of memory or storage. The operation of the power-converting unit 26-24, the electronic control module 26-24, and the DC/DC converter 27 will be explained in greater detail below.

[0038] A generally planar surface of the electronic control module 26-24 includes cooling fins. The electronic control module 26-24 is advantageously fastened through mounts 76 directly behind, but spaced apart from, the first set of cooling air intake vents 32. This direct mounting of the electronic control module 26-24 allows the cooling air to first contact the planar surface of the module 26-24 providing substantial cooling of the module 26-24. Mounting of the electronic control module 26-24 directly behind the first set of cooling air access intake vents 32 also acts to insulate the internal noise of the power generator unit 10, thereby providing quieter operation. The power generator operational noise is kept to a minimum even though air is allowed to freely enter the cooling intake vents 32 to efficiently cool internal components of the power generator unit 10.

[0040] A first portion C of the cooling air enters the air intake vents 32 and initially cools the electronic control module 26-24. The broad surface of the electronic control module 26-24 provides the cooling air with a large heat transfer surface over which the air passes. Another portion D of the cooling air enters the second cooling air intake vent 34 and initially cools the battery 28. The cooling air path A is established when air is drawn into the engine cooling fan housing 66 through a fan housing opening 84 by the engine-cooling fan 60. The air flows through the engine cooling fan 86, cools the engine cylinder 16 and the cylinder head 17. The cooling air is then deflected by an air deflector 82 and is guided into the muffler housing 80 to cool the muffler 31. Air traveling along the first cooling air path A advantageously flows through or over the warmer engine components allowing the cooler engine components, and other cooler components within the sound insulation cover 36, to remain at a cooler temperature.

Application No. : 10/630,593
Filed : July 30, 2003

These other cooler components can include the fuel tank 76, the electronic control module 26, and various fuel lines.

[0041] Air flow along the second cooling air path B also originates from a portion of the cooling air that enters the air intake vents 32 and initially cools the electronic control module 26 24. The air flow along the second cooling air path B is also comprised of the other portion of the cooling air that enters the second cooling air intake vent 34 that initially cools the battery 28, starter motor 70, and the crankcase 14. A generator cooling fan 86 including at least one blade draws air into the crankcase/generator cover 74 through various cooling air intake vents 88. The generator cooling fan 86 is connected to the generator 22 through a fan hub 90. The drawn-in air passes through and cools the generator 22 and is guided by the arrangement of internal components within the crankcase/generator cover 74 to enter the muffler housing 80 to cool the muffler 31 and then to exit through a portion of a side cover effluent air vent 92. These two generally distinct cooling paths A, B are advantageously separated, thereby allowing efficient cooling of the warmer components of the power generator unit 10, as well as cooling of those components operating at a lower temperature within the power generator unit 10. Incorporated into the effluent vent 92, is an exhaust outlet recess 94 where a tail pipe 96 discharges exhaust gases to the outside environment.

[0052] With reference to Figure 10, a right side view of the crankcase/generator cover 74 shows the area where the generator 22 is mounted to the crankcase/generator cover 74. A generator mounting area 142 of the crankcase/generator cover 74 preferably incorporates a circular size and shape closely matching the size and shape of the generator 22. This similar size and shape of the generator mounting area or recess 142 allows the cooling air to efficiently cool the generator by through the generator 22 and to inhibit the cooling air from traveling around the generator 22. The cooling air intake vents 88 also encourage the cooling air to pass through the generator 22 instead of immediately escaping the generator 22 in the opposite direction against the cooling air flow. A plurality of securing boss members permit the crankcase/generator cover 74 to be securely attached to the engine 12 and to allow other covers to be secured.